

### **REMARKS**

Applicants thank the Examiner for the consideration given to the present application. Claims 1-8 and 10 - 17 are pending in this present application. Claims 1 and 10 are amended. Claims 1 and 10 are independent claims. Claims 9 and 18 are cancelled.

### **Scope of Amendments**

Applicants respectfully submit that the limitations of now-cancelled claims 9 and 18 are incorporated into independent claims 1 and 10.

### **Claim Rejections under 35 U.S.C. § 102**

Claims 10, 11, 16 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication 2003/0086583 by Maltan et al. ("Maltan"). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

### **Claim 10**

Independent claim 10 pertains to "a method of shielding a planar antenna in a hearing aid from de-tuning or electromagnetic noise effects caused by other components in the hearing aid, the method comprising ... disposing the planar antenna, which is part of a transmission and reception circuit, in close proximity to a battery situated inside the hearing aid such that the planar antenna has one surface facing in a sound-gathering direction of the heading aid and an opposite surface facing towards the battery, said preventing including electromagnetically shielding the planar antenna with respect to the other hearing aid components and arranging the battery as a ground plane for the antenna."

### **No Planar Antenna**

Insofar as Maltan discusses the structure and disposition of the antenna, the only mention of it regarding how it structured and arranged is a comment stating that coil windings of the antenna may be physically located within the head portion (Para. 0055). As shown in Figs. 6A

and 6B, Maltan's antenna coil windings (element 64) are not planar and also do not have "one surface facing in a sound-gathering direction of the hearing aid and an opposite surface facing towards the battery" as required by independent claim 10. Matlan's antenna windings are shown and suggested as being three-dimensional coil shapes positioned to encircle the periphery of the microphone assembly (Fig. 6A).

#### No Grounding and Shielding

Independent claim 10 also requires "said preventing including electromagnetically shielding the planar antenna with respect to the other hearing aid components and arranging the battery as a ground plane for the antenna." Maltan is completely silent with respect to any kind of electromagnetic interaction between the battery and the antenna. Specifically, Applicants note that Maltan discloses device components as being segregated into sub-modules with each sub-module appearing isolated and distinct from the other. Applicants respectfully submit that the combination of Maltan's antenna being disposed at the very front of the device (Fig. 6A, element 64) and the power source being positioned at a significant remove therefrom result in a structure where the battery cannot possibly act "as a ground plane for the antenna."

Applicants further submit that because Maltan's device is constructed and intended for implantation in an artificially created tunnel, there are no concerns regarding de-tuning of the antenna because the dimensions of the tunnel are controlled and adapted to the dimensions of Maltan's device. Maltan therefore neither teaches nor suggests grounding or shielding an antenna from other hearing aid components by using a battery because the very structure and nature of Maltan's invention obviates the need for such shielding and grounding. Applicants therefore respectfully submit that Maltan fails to teach or suggest "said preventing including electromagnetically shielding the planar antenna with respect to the other hearing aid components and arranging the battery as a ground plane for the antenna" as required by independent claim 10.

Applicants further note that cancelled claim 18, whose limitations are now incorporated into claim 10, is discussed as being rejected by the combination of two references. Specifically, the Office Action appears to reject claim 18 under 35 U.S.C. §103 as unpatentable over Matlan in

view of U.S. Patent 5,734,976 to Bartschi et al. ("Bartschi"). Applicants respectfully submit that Bartschi cannot properly be relied upon to teach "arranging the battery as a ground plane for the antenna."

Although Bartschi depicts a battery having one terminal connected to ground (Fig. 1, element f), there is nothing in the drawing figures or discussion thereof where Bartschi teaches or suggests that the power source (Fig. 1, element 10) is arranged "as a ground plane for the antenna" as required by independent claim 10.

#### Claims 11 and 16

Applicants respectfully submit that claims 11 and 16 are allowable at least by virtue of their dependency from independent claim 10.

#### Summary

At least in view of the above, Applicants respectfully submit that Maltan is deficient in its teaching with respect to independent claim 10 and all claims depending therefrom. Applicants further submit that Bartschi cannot properly be relied upon to remedy the deficiencies of Maltan with respect to independent claim 10 or any claims depending therefrom. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

#### **Claim Rejections under 35 U.S.C. § 103 - Bartschi**

Claims 1, 2, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maltan in view of U.S. Patent 5,734,976 to Bartschi et al. ("Bartschi"). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

#### Claim 1

Independent claim 1 pertains to an in-ear communication device having a custom-made shell where "antenna and battery further being situated in close proximity to each other such that the battery is an electromagnetic shield between the antenna and other parts of the

communication device circuitry, thereby preventing the antenna from becoming de-tuned as a result of variations in the position of the other circuitry in the device, and also such that the battery is a ground plane for the antenna.”

#### No Grounding or Shielding

As discussed above with respect to independent claim 10, Applicants respectfully submit that neither Maltan nor Bartschi teach or suggest an arrangement of an antenna and a battery “such that the battery is a ground plane for the antenna.” Applicants submit that both references are completely silent on this topic and neither of them demonstrates a structure where such grounding is inherently necessary. Applicants therefore respectfully submit that neither Maltan nor Bartschi, taken either alone or in combination (assuming the references may be combined, which Applicants do not admit), establish *prima facie* obviousness of independent claim 1 or any claims depending therefrom.

#### Claims 2 and 7

Applicants respectfully submit that claims 2 and 7 are allowable at least by virtue of their dependency from independent claim 1.

#### Summary

At least in view of the above, Applicants respectfully submit that neither Maltan nor Bartschi, taken either alone or in combination (assuming the references may be combined, which Applicants do not admit), teach or suggest an arrangement of a battery and an antenna in a hearing aid “such that the battery is a ground plane for the antenna” as required by independent claim 1 and all claims depending therefrom. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

**Claim Rejections under 35 U.S.C. § 103 – Dependent Claims**

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maltan in view of Bartschi and further in view of U.S. Patent Publication 2008/0095387 by Niederdrank (“Niederdrank”).

Claims 4-6 are rejected under 35 U.S.C. as being unpatentable over Maltan in view of Bartschi and further in view of Worldwide Patent Publication WO 99/48330 to Van Vroenhoven (“Van Vroenhoven”).

Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maltan in view of Niederdrank.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maltan in view of Van Vroenhoven.

Insofar as they pertain to the presently pending claims, these rejections are respectfully traversed.

Applicants respectfully submit that claims 3 – 6, 8, 12 – 15, and 17 are allowable at least by virtue of their dependency from independent claims 1 and 10. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

**Conclusion**

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Naphtali Matlis Reg. No. 61,592 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

  
By \_\_\_\_\_

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